Koushik Bhat

Indian Institute of Technology Madras (India)

IITM, Chennai - 600036, Tamil Nadu , India

+91-8762978130 • koushikbhat25@gmail.com

www.linkedin.com/in/koushik-bhat-337220143/ • www.github.com/kpbhat25

Education

Program	Institution/Board	%/CGPA	Year
M.S. (Electrical Engineering)	Indian Institute of Technology Madras *Chennai, Tamil Nadu*	**8.6/10**	2021-23
B.E. (Electrical and Electronics Engg.)	B.M.S College of Engineering *Bengaluru, Karnataka*	**9.1/10**	2016-20

Key Projects

1. *Sudha Gopalakrishnan Brain Centre* **June 2022 - Present**

(M.S/Prof. Mohanasankar Sivaprakasam and Keerthi Ram) *IIT Madras*

- Developed a pipeline to implement the 2D Registration of the slices.
- Cell Segmentation and Visualization tools for atlas
- *Keywords: Registration , Segmentation*

2. *Precison Medicine Analytics* **Jan 2022 - May 2022**

(M.S / Prof. Mohanasankar Sivaprakasam and Dr.Prashanth Dumpuri) *IIT Madras*

- Correctly **classified** the Kaggle eye image dataset into different stages of DR and also **predicted** an eye image as **abnormal or normal with 94% accuracy.**
- *Keywords: CNN, DR, Kaggle, GPU, Python, Anaconda, Keras, Confusion Matrix*

3. *Black Box for Car* **Jan-May 2020**

(B.Tech / Guide: Prof. P. Meena) *B.M.S.C.E*

- Developed a data acquisition model for the four wheelers with the insights from the Banglore City Traffic Department.
- The idea was shortlisted for the Concept Presentation of fresh Design Projects from IISc.
- *Keywords: RaspberryPi, Safety*

Professional Experience

Orxa Energies **Jan-July 2020**

(Electronics Engineering Intern) *Bengaluru*

- Study on the Life Cycles of the Li-Ion Battery Cells
- Engineered and Designed an automated circuitry for the Life Cycle Monitoring of the Cells

Course Projects

1. *Deep Autoencoding Gaussian Mixture Model for Unsupervised Anomaly Detection* **Jan-May 2022**

(M.S / Faculty: Prof. Sheetal Kalyani) *Bengaluru*

- Experimental results on several public benchmark datasets show that, DAGMM significantly outperforms state-of-the-art anomaly detection techniques, and achieves up to 14% improvement based on the standard F1 score

2. *Image Signal Processing* **Jan-May 2023**

(M.S / Faculty: Prof. A.N.Rajagopalan) *IIT Madras*

Course Projects: Geometric Transformation •Image mosaicing •Shape from Focus •Space-variant and Space-invariant blurring •DFT, SVD •Otsu's thresholding •K-Means Clustering •Image filtering • Image Deblurring

Course Work

1. Key Courses **August 2021-Dec 2022**
(Core and electives) *IIT Madras*

- Course: Applied Linear Algebra I for EE , Probability Foundations for Electrical Engineers, Computer Methods in Electrical Engineering , Image Signal Processing , Introduction to Machine Learning, Deep Learning for Imaging

Technical Skills

- Programming Language: C, C++, Python
- Framework: PyTorch , Torchserve
- Tools: Latex, Anaconda, Microsoft Office

Others

- Hobbies: Movie Buff, Learning languages
- Languages: Kannada , Hindi.

Declaration

I do hereby declare that all the details furnished above are true to the best of my knowledge and belief.

Place: Chennai, Tamil Nadu (Full Name)
Date: 18th Aug, 20xx

Note: Highlighted are link to proofs and validation (if required).